AMENDMENTS TO THE CLAIMS

1.   (Currently Amended) A method for automatically recognizing or verifying objects in a digital image, said method comprising:

accessing digital image data containing an object of interest therein;

detecting an object of interest in said digital image data;

normalizing said object of interest to generate a normalized object representation;

extracting a plurality of features from said normalized object representation; and

applying each extracted feature to a previously-determined additive probability model to determine the likelihood that the object of interest belongs to an existing class of objects,

wherein said additive probability model models the objects using a class center and residual components between the objects and the class center, wherein an uncertainty related to the class center is represented by a model associated with the class center~,

wherein said object of interest is a face and said step of detecting the object of interest detects facial features in said digital image data.

2.   (Previously Presented) The method according to claim 1, wherein said previously-determined additive probability model is an Additive Gaussian Model that decomposes an appearance of an object into components corresponding to class and view.

3.   (Previously Presented) The method according to claim 1, further comprising:

selecting the existing class for said object of interest based on said likelihood; and

re-calculating the additive probability model for the selected class using a feature value of the object of interest.

4-6.   (Canceled)

7.   (Currently Amended) The method according to claim 1̶6, wherein said step of detecting the object of interest utilizes early rejection to determine that an image region does not correspond to a facial feature.

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8.   (Original) The method according to claim 1, wherein said object of interest is a face in a digital photo.

9.   (Original) The method according to claim 1, further comprising:

generating an additive probability model for each of a plurality of classes based on feature values for objects belonging to said classes.

10.   (Previously Presented) The method according to claim 9, wherein said step of generating the additive probability model for a particular class is repeated each time a detected object of interest is added to the corresponding class.

11.   (Previously Presented) The method according to claim 9, wherein said step of generating the additive probability model clusters examples belonging to a single class so as to generate multiple additive probability models for each class identity.

12.   (Previously Presented) The method according to claim 9, wherein said step of generating the additive probability model computes a posterior distribution for a feature value mean from at least one example feature value.

13.   (Original) The method according to claim 12, wherein said additive probability model models variance of said feature value mean.

14.   (Original) The method according to claim 13, wherein said variance of said feature value mean approaches zero as more examples are associated with the corresponding class.

15.   (Original) The method according to claim 1, further comprising:

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executing a training stage to identify a set of independent features that discriminate between classes.

16.   (Original) The method according to claim 1, wherein said digital image data represents a digital photo.

17.   (Currently Amended) An apparatus for automatically recognizing or verifying objects in a digital image, said apparatus comprising:

a digital image data input for accessing digital image data containing an object of interest therein;

an object detector for detecting an object of interest in said digital image data;

a normalizing unit for normalizing said object of interest to generate a normalized object representation;

a feature extracting unit for extracting a plurality of features from said normalized object representation; and

a likelihood determining unit for applying each extracted feature to a previously-determined additive probability model to determine the likelihood that the object of interest belongs to an existing class of objects,

wherein said additive probability model models the objects using a class center and residual components between the objects and the class center, wherein an uncertainty related to the class center is represented by a model associated with the class center., and

wherein said object of interest is a face and said object detector for detecting an object of interest detects facial features in said digital image data.

18.   (Previously Presented) The apparatus according to claim 17, wherein said previously-determined additive probability model is an Additive Gaussian Model that decomposes an appearance of an object into components corresponding to class and view.

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19.   (Previously Presented) The apparatus according to claim 17, wherein said likelihood determining unit selects the existing class for said object of interest based on said likelihood; and re-calculates the additive probability model for the selected class using a feature value of the classified object of interest.

20-22. (Canceled)

23.   (Currently Amended) The apparatus according to claim 17~~22~~, wherein said object detector detects the object of interest utilizing early rejection to determine that an image region does not correspond to a facial feature.

24.   (Original) The apparatus according to claim 17, wherein said object of interest is a face in a digital photo.

25.   (Original) The apparatus according to claim 17, wherein said apparatus generates an additive probability model for each of a plurality of classes based on feature values for objects belonging to said classes.

26.   (Previously Presented) The apparatus according to claim 25, wherein said apparatus repeats generating the additive probability model for a particular class each time a detected object of interest is added to the corresponding class.

27.   (Previously Presented) The apparatus according to claim 25, wherein said apparatus generates the additive probability model by clustering examples belonging to a single class so as to generate multiple additive probability models for each class identity.

28.   (Previously Presented) The apparatus according to claim 25, wherein said apparatus generates the additive probability model by computing a posterior distribution for a feature value mean from at least one example feature value.

29.   (Original) The apparatus according to claim 28, wherein said additive probability model models variance of said feature value mean.

30.   (Original) The apparatus according to claim 29, wherein said variance of said feature value mean approaches zero as more examples are associated with the corresponding class.

31.   (Original) The apparatus according to claim 17, wherein said apparatus executes a training stage to identify a set of independent features that discriminate between classes.

32.   (Original) The apparatus according to claim 17, wherein said digital image data represents a digital photo.